

Application of the Lake Okeechobee Regulation Schedule (LORS2008) on 05/02/2022 (ENSO Condition: La Niña)

Lake Okeechobee Net Inflow Outlook:

The Lake Okeechobee Net Inflow Outlook has been computed using 4 methods: Croley's method¹, the SFWMD empirical method², a sub-sampling of La Niña years³ and a sub-sampling of warm years of the Atlantic Multi-decadal Oscillation (AMO) in combination with La Niña ENSO years⁴. The results for Croley's method and the SFWMD empirical method are based on the CPC Outlook.

Table of the Lake Okeechobee Net Inflow Outlooks in feet of equivalent depth. All methods are updated on a weekly basis with observed net inflow for the current month.

Season	Croley's Method ^{1*}		SFWMD Empirical Method ²		Sub-sampling of La Niña ENSO Years ³		Sub-sampling of AMO Warm + La Niña ENSO Years ⁴	
	Value (ft)	Condition	Value (ft)	Condition	Value (ft)	Condition	Value (ft)	Condition
Current (May-Oct)	N/A	N/A	2.45	Very Wet	2.48	Very Wet	2.46	Very Wet
Multi Seasonal (May-Apr)	N/A	N/A	3.12	Wet	2.30	Normal	1.98	Normal

*Croley's Method Not Produced for This Report

See Seasonal and Multi-Seasonal tables for the classification of Lake Okeechobee Outlooks.

The recommended methods and values for estimating the Lake Okeechobee Net Inflow Outlook are shaded and should be used in the LORS2008 Release Guidance Flow Charts.

**Sub-sampling is a weighted average of ENSO conditions based on the ENSO forecast used.

Tributary Hydrologic Conditions Graph:

-2429 cfs 14-day running average for Lake Okeechobee Net Inflow through 05/02/2022. According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

-2.81 for Palmer Drought Index on 05/02/2022.

According to the classification in Tributary Hydrologic Conditions table, this condition is Dry.

The wetter of the two conditions above is **Dry**.

LORS2008 Classification Tables:

Lake Okeechobee Stage on 05/02/2022:

Lake Okeechobee Stage: **12.98 feet**

Lake Okeechobee Management Zone/Band	Bottom Elevation (feet, NGVD)	Current Lake Stage
High Lake Management Band	17.07	
Operational Band	High sub-band	16.35
	Intermediate sub-band	15.42
	Low sub-band	13.50
Base Flow sub-band	12.60	← 12.98 ft
Beneficial Use sub-band	11.45	
Water Shortage Management Band		

Part C of LORS2008: Discharge to WCAs

No releases to WCAs.

Part D of LORS2008: Discharge to Tide

Up to 450 cfs at S-79 and up to 200 cfs at S-80.

**Lake Okeechobee Releases to the Caloosahatchee Estuary
for 2008 LORS Baseflow & for Environmental Water Supply**

Guidance for Lake Okeechobee Releases to the Caloosahatchee Estuary indicates no S77 release to the Caloosahatchee Estuary unless the Governing Board recommends otherwise.

LORS2008 Implementation on 05/02/2022 (ENSO Condition- La Nina Watch):

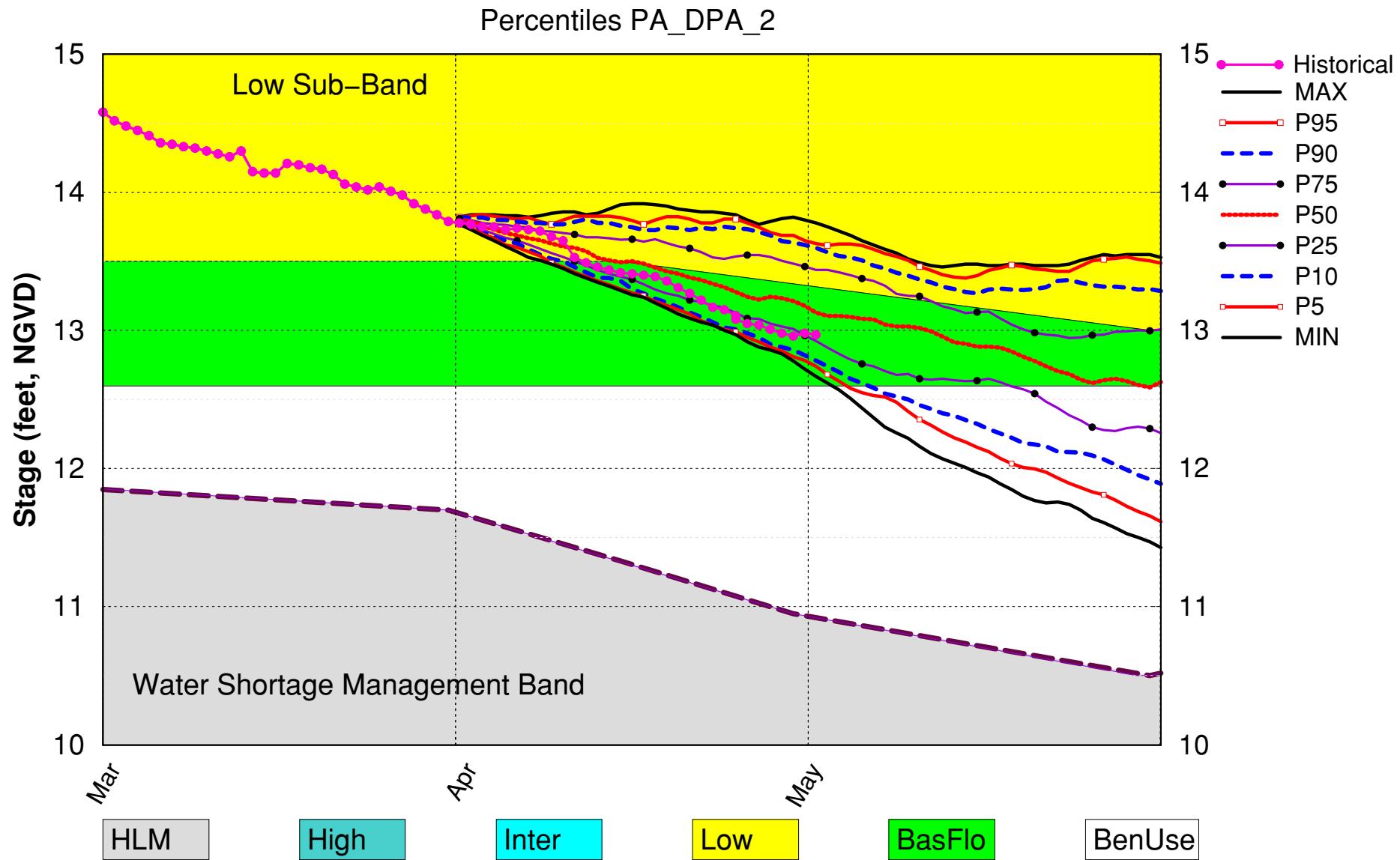
Status for week ending 05/02/2022:

Water Supply Risk Evaluation

Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Beneficial Use	M
	Palmer Drought Index for LOK Tributary Conditions	-2.81 (Extremely Dry)	H
	CPC Precipitation Outlook	1 month: Normal	M
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Outlook	2.48 ft	L
	ENSO Forecast	Normal to extremely wet	
	LOK Multi-Seasonal Net Inflow Outlook	2.30 ft	M
WCAs	ENSO Forecast	Normal	
	WCA 1: 3 Station Average (Sites 1-7, 1-8T and 1-9)	Above Line 1 (15.89 ft)	L
	WCA 2A: Site S-11B	Below Line 2 (10.69 ft)	H
LEC	WCA-3A: 3 Station Average (Sites 63, 64, and 65)	Line 1 - Line 2 (8.56 ft)	M
	Service Area 1	Year-Round Irrigation Rule in effect	L
	Service Area 2	Year-Round Irrigation Rule in effect	L
	Service Area 3	Year-Round Irrigation Rule in effect	L

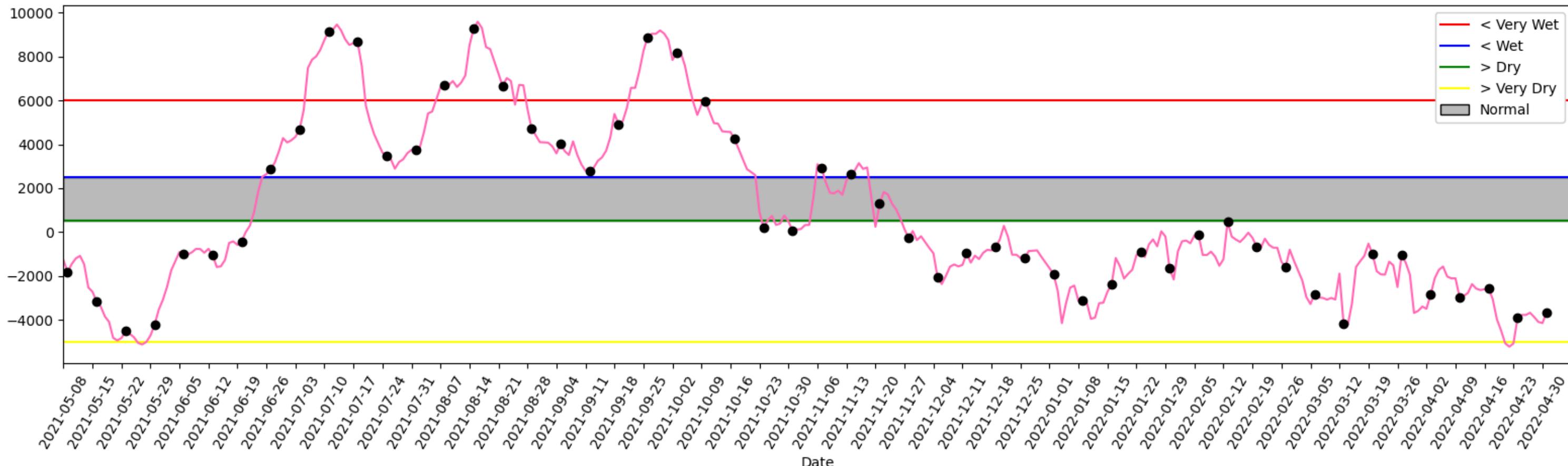
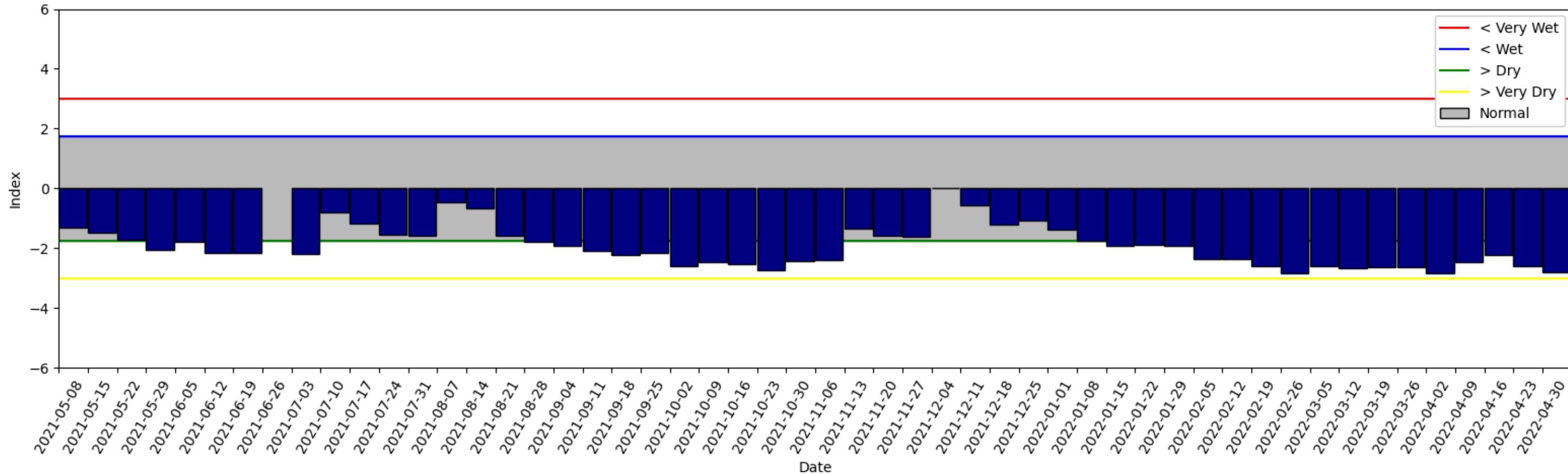
Note: The water supply risk classification based on the Palmer index, as well as the LOK seasonal and multi-seasonal net inflow outlooks use slightly different classification intervals than those used by the 2008-LORS.

Lake Okeechobee SFWMM April 2022 Position Analysis



(See assumptions on the Position Analysis Results website)

Tributary Basin Condition Indicators as of May 01 2022



2008 LORS

Part C: Establish Allowable Lake Okeechobee Releases to the Water Conservation Areas

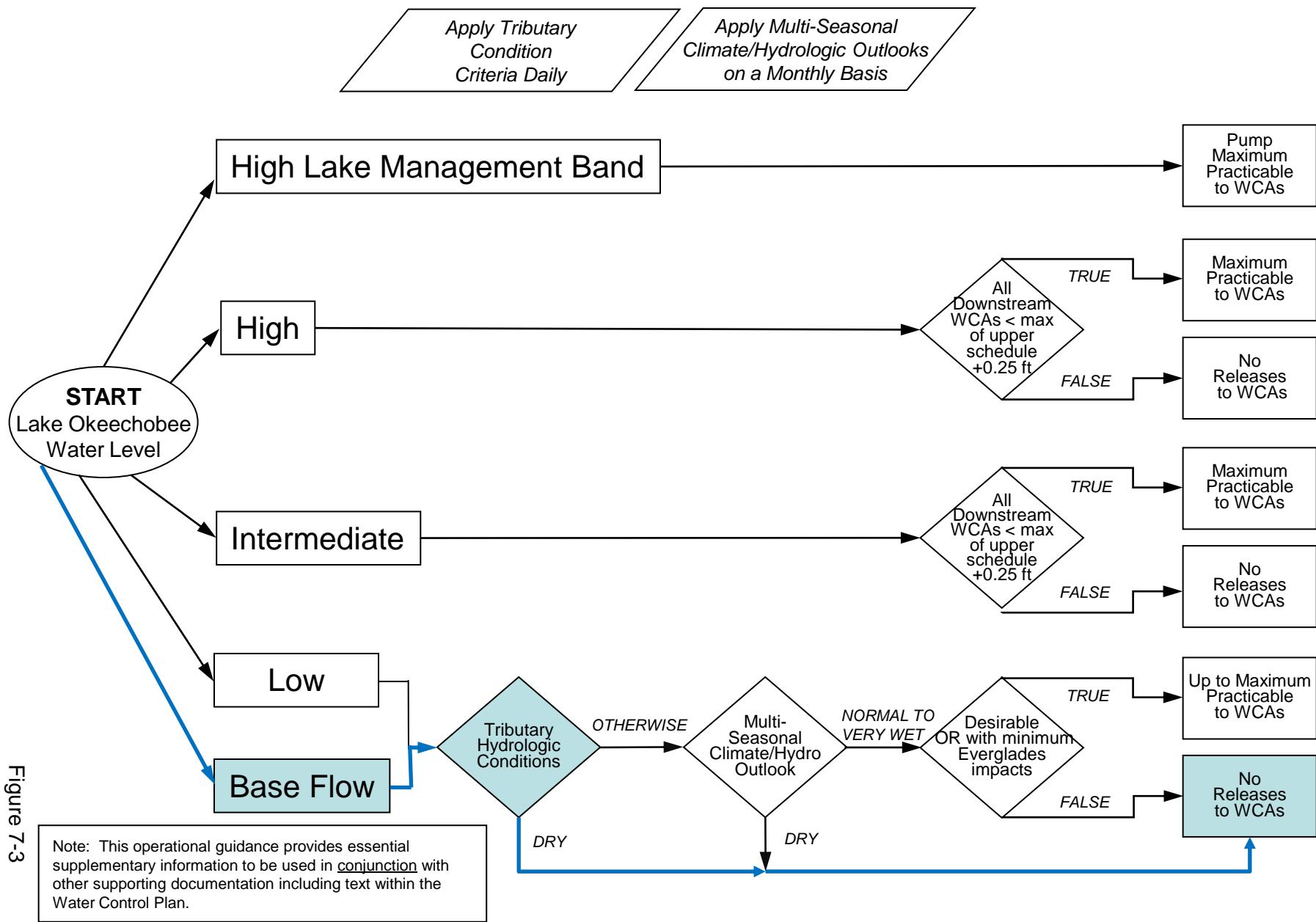


Figure 7-3

2008 LORS

Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)

Note: This operational guidance provides essential supplementary information to be used in conjunction with other supporting documentation including text within the Water Control Plan.

When conducting Base Flow releases, flows can be distributed East and West up to 650 cfs as needed to minimize impacts or provide benefits through S-80 and S-79

Apply Meteorological Forecasts on a Weekly Basis; apply Seasonal and Multi-Seasonal Climate/Hydrologic Outlooks on a Monthly Basis

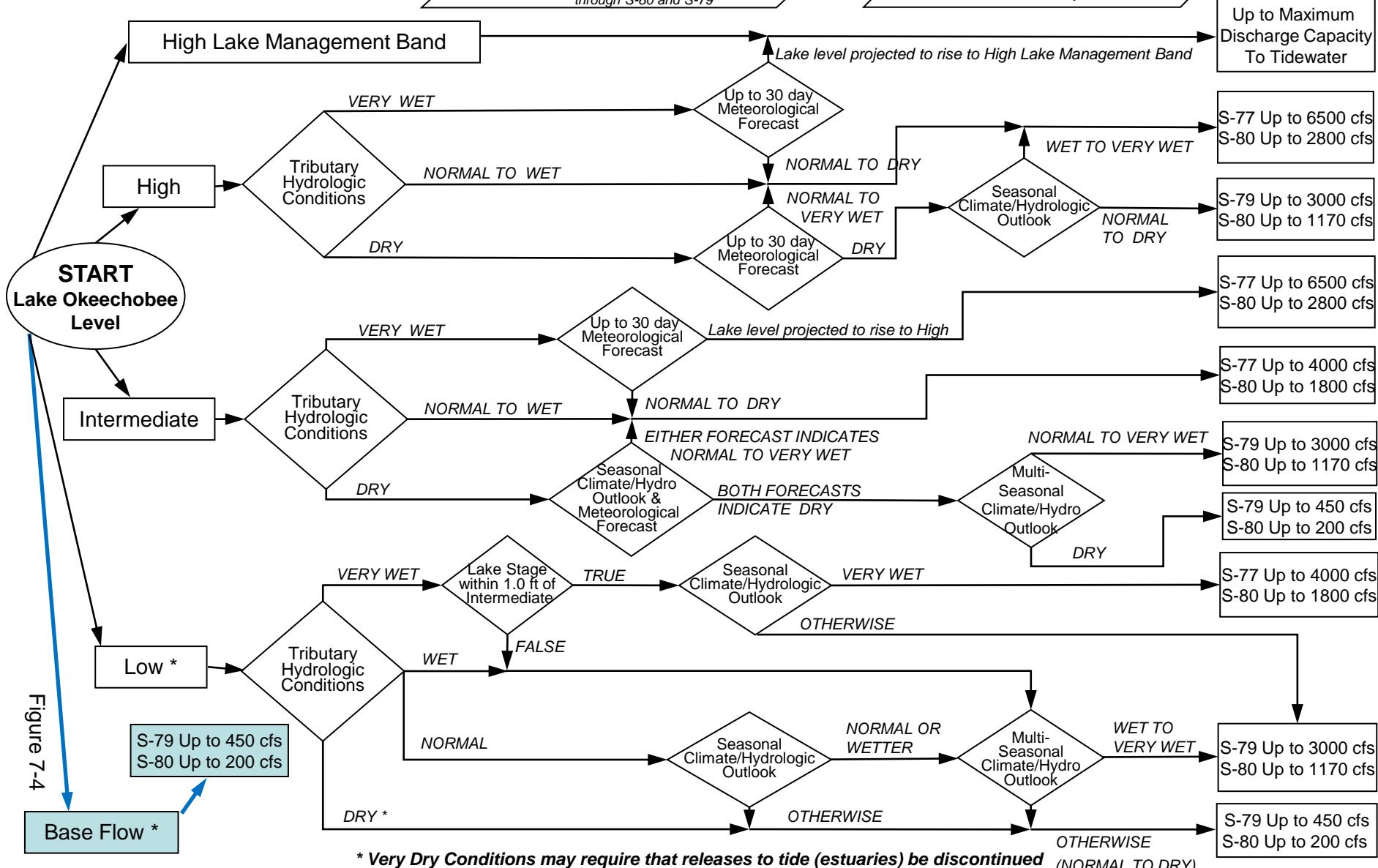
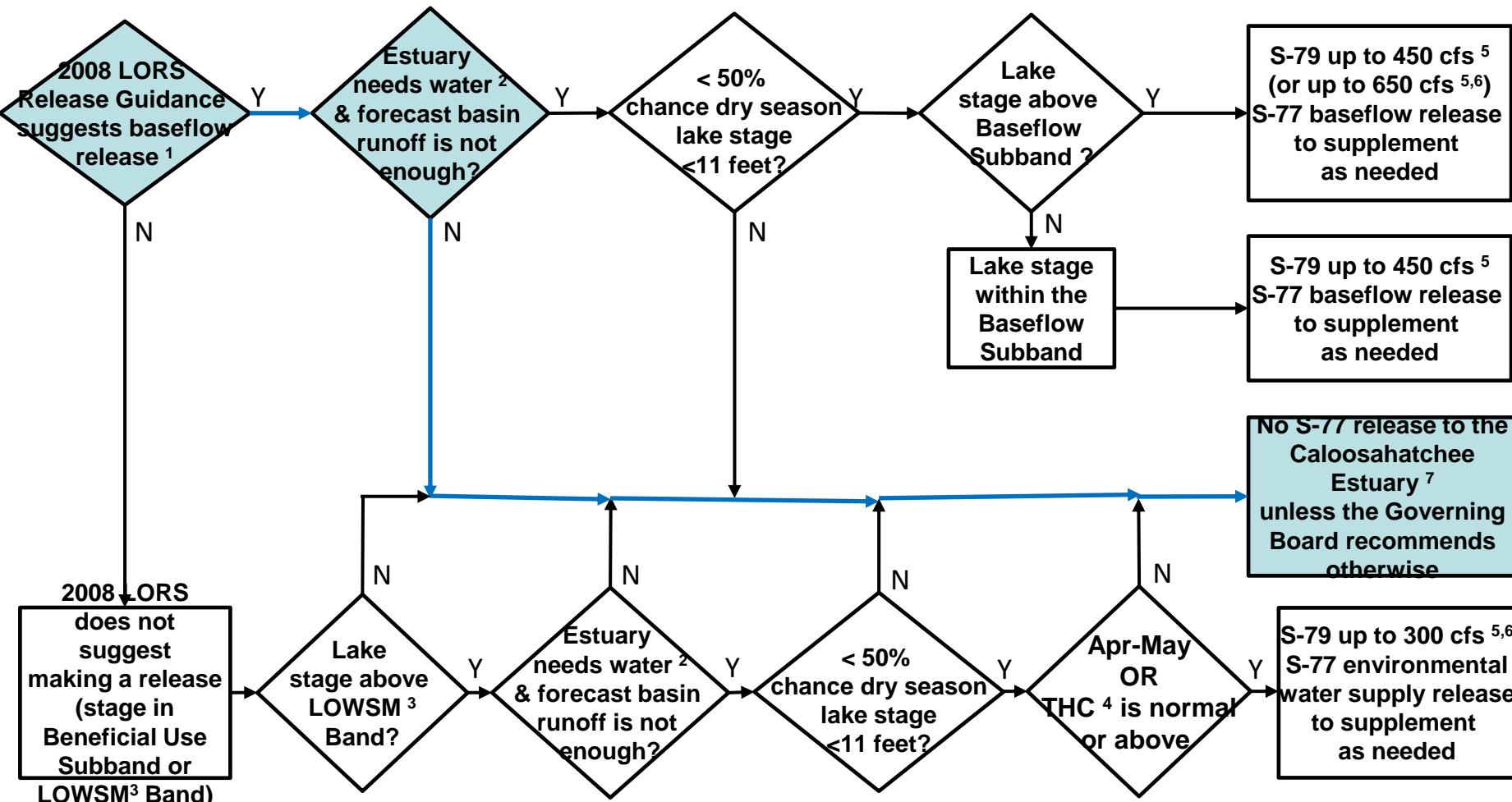
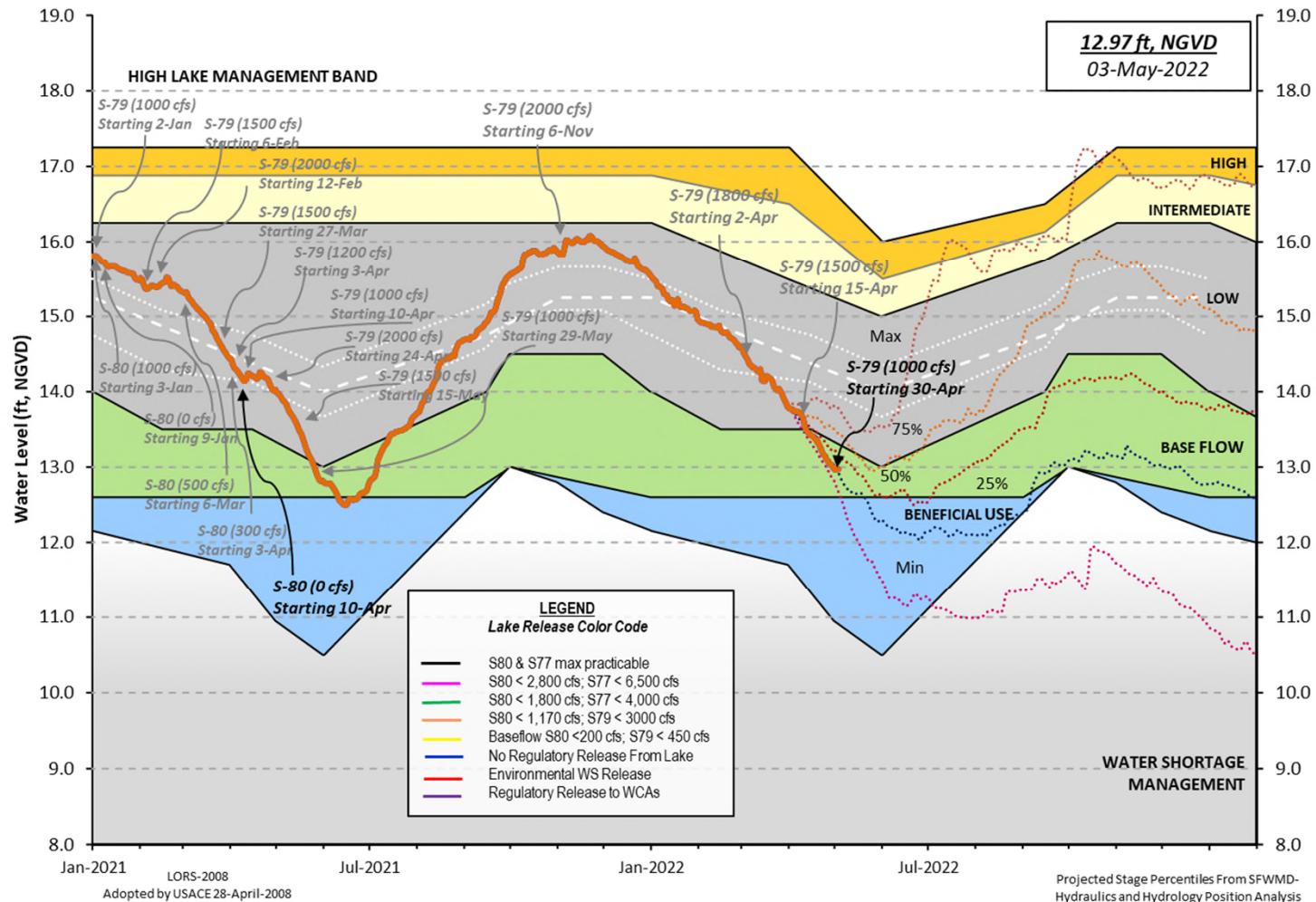


Figure 7-4

Flowchart to Guide Recommendations for Lake Okeechobee Releases to the Caloosahatchee Estuary for 2008 LORS Baseflow & for Environmental Water Supply (revised 9-Aug-2012)



Lake Okeechobee Water Level History and Projected Stages



U. S. Army Corps of Engineers, Jacksonville District
Lake Okeechobee and Vicinity Report
** Preliminary Data - Subject to Revision **

Data Ending 2400 hours 01 MAY 2022

Okeechobee Lake Regulation	Elevation	Last Year	2YRS Ago
	(ft-NGVD)	(ft-NGVD)	(ft-NGVD)
*Okeechobee Lake Elevation	12.98	13.99	11.43 (Official Elv)
Bottom of High Lake Mngmt= 16.64	Top of Water Short Mngmt= 10.94		
Currently in Operational Management Band			
Simulated Average LORS2008 [1965-2000]	12.39		
Difference from Average LORS2008	0.59		
01MAY (1965-2007) Period of Record Average	13.60		
Difference from POR Average	-0.62		

Today Lake Okeechobee elevation is determined from the 4 Int & 4 Edge stations

++Navigation Depth (Based on 2007 Channel Condition Survey) Route 1 ♦?
6.92'
++Navigation Depth (Based on 2008 Channel Condition Survey) Route 2 ♦?
5.12'
Bridge Clearance = 50.64'

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4 Interior and 4 Edge Okeechobee Lake Average (Avg-Daily values):

L001	L005	L006	LZ40	S4	S352	S308	S133
12.97	13.05	12.97	12.99	12.88	13.05	12.97	12.92

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*Combination Okeechobee Avg-Daily Lake Average = 12.98
(*See Note)

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Okeechobee Inflows (cfs):

S65E	1674	S65EX1	0	Fisheating Cr	0
S154	0	S191	0	S135 Pumps	0
S84	0	S133 Pumps	0	S2 Pumps	0
S84X	0	S127 Pumps	0	S3 Pumps	0
S71	0	S129 Pumps	0	S4 Pumps	0
S72	0	S131 Pumps	0	C5	0
Total Inflows:		1674			

Okeechobee Outflows (cfs):

S135 Culverts	4	S354	0	S77	1331
S127 Culverts	0	S351	138	S308	760
S129 Culverts	0	S352	147		
S131 Culverts	0	L8 Canal Pt	-NR-		

Total Outflows: 2381

****S77 structure flow is being used to compute Total Outflow.
****S308 structure flow is being used to compute Total Outflow.

Okeechobee Pan Evaporation (inches):

S77 0.31 S308 0.17

Average Pan Evap x 0.75 Pan Coefficient = 0.18" = 0.02'

Lake Average Precipitation using NEXRAD: = -NR- = -NR-'

Evaporation - Precipitation: = -NR- = -NR-'

Evaporation - Precipitation using Lake Area of 730 square miles

is equal to -NR-

Lake Okeechobee (Change in Storage) Flow is 3933 cfs or 7800 AC-FT

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Headwater Tailwater			Gate Positions							
---	Elevation	Elevation	Disch	#1	#2	#3	#4	#5	#6	#7
#8	(ft)	(ft-msl)	(cfs)	(ft)						
(I) see note at bottom										
North East Shore										
S133 Pumps:	12.99	12.93	0	0	0	0	0	0	0	(cfs)
S193:										
S191:	19.09	12.91	0	0.0	0.0	0.0				
S135 Pumps:	12.69	12.85	0	0	0	0	0	0	0	(cfs)
S135 Culverts:			4	2.6	2.6					
North West Shore										
S65E:	21.00	12.90	1674	0.9	0.9	0.5	0.5	0.7	0.6	
S65EX1:	21.00	12.90	0							
S127 Pumps:	12.65	12.99	0	0	0	0	0	0	0	(cfs)
S127 Culvert:			0	0.0						
S129 Pumps:	12.57	12.95	0	0	0	0				(cfs)
S129 Culvert:			0	0.0						
S131 Pumps:	12.57	13.10	0	0	0					(cfs)
S131 Culvert:			0							
Fisheating Creek										
nr Palmdale		27.47	0							
nr Lakeport										
C5:	_____	-NR-	0	-NR-	-NR-	-NR-				
South Shore										
S4 Pumps:	11.39	-NR-	0	0	0	0				(cfs)
S169:	_____	-NR-	-NR-	-NR-	-NR-	-NR-				

S310:	12.92	-22												
S3 Pumps:	11.11	13.06	0	0	0	0	0	0	0	0	0	0	(cfs)	
S354:	13.06	11.11	0	0.0	0.0									
S2 Pumps:	10.60	13.09	0	0	0	0	0	0	0	0	0	0	(cfs)	
S351:	13.09	10.60	138	0.6	0.0	0.6								
S352:	13.01	10.55	147	1.2	1.4									
C10A:	-NR-	8.18		8.0	8.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0		
L8 Canal PT		12.91	-NR-											

S351 and S352 Temporary Pumps/S354 Spillway													
S351:	10.60	13.09	138	-NR--NR--NR--NR--NR--NR-									
S352:	10.55	13.01	147	-NR--NR--NR--NR-									
S354:	11.11	13.06	0	-NR--NR--NR--NR-									

Caloosahatchee River (S77, S78, S79)

S47B:	12.96	11.18		0.0	0.0								
S47D:	11.17	11.19	-52	5.0									
S77:													
Spillway and Sector Preferred Flow:													
12.87	11.07	1326	2.5	2.5	2.5	0.0							
Flow Due to Lockages+:			5										

S78:

Spillway and Sector Flow:													
11.08	3.06	983	1.0	0.0	0.0	2.0							
Flow Due to Lockages+:			17										

S79:

Spillway and Sector Flow:													
3.24	0.76	1372	0.0	0.0	1.0	2.0	1.0	1.0	1.0	0.0			
0.0													
Flow Due to Lockages+:			9										
Percent of flow from S77			97%										
Chloride (ppm)			0										

St. Lucie Canal (S308, S80)

S308:													
Spillway and Sector Preferred Flow:													
12.97	12.86	760	3.5	3.5	3.5	3.5							
Flow Due to Lockages+:			0										
S153:	18.88	12.65	0	0.0	0.0								
S80:													
Spillway and Sector Flow:													
12.88	1.46	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Flow Due to Lockages+:			25										
Percent of flow from S308			NA %										

Steele Point Top Salinity (mg/ml) ****
 Steele Point Bottom Salinity (mg/ml) ****

Speedy Point Top Salinity (mg/ml) ****
 Speedy Point Bottom Salinity (mg/ml) ****

+ Flow Due to lockages is computed utilizing average daily headwater and tailwater along with total number of lockages for the day to calculate a volume which is then converted to an average discharge in cfs.

++ Preferred flow is determined from either the spillway discharge or the below flow meter daily

-		----- Wind -----		
-		1-Day	3-Day	7-Day
Daily Precipitation Totals	Speed	(inches)	(inches)	Direction
(mph)				(Deg ♦)
S133 Pump Station:		-NR-	0.00	0.00
S193:		-NR-	0.00	0.00
Okeechobee Field Station:		-NR-	0.00	0.00
S135 Pump Station:		-NR-	0.00	0.00
S127 Pump Station:		-NR-	0.00	0.00
S129 Pump Station:		-NR-	0.00	0.00
S131 Pump Station:		-NR-	0.00	0.00
S77:		0.00	0.17	1.44
S78:		0.00	0.56	0.70
S79:		0.01	0.83	0.93
S4 Pump Station:		-NR-	0.00	0.00
Clewiston Field Station:		-NR-	0.00	0.00
S3 Pump Station:		-NR-	0.00	0.00
S2 Pump Station:		-NR-	0.00	0.00
S308:		0.05	0.06	0.06
S80:		0.00	0.09	0.47
Okeechobee Average (Sites S78, S79 and S80 not included)		0.03	0.02	0.12
Oke Nextrad Basin Avg		-NR-	0.00	0.00

Okeechobee Lake Elevations		01 MAY 2022	12.98	Difference from
01MAY22				
01MAY22	-1 Day =	30 APR 2022	12.96	-0.02
01MAY22	-2 Days =	29 APR 2022	12.98	0.00
01MAY22	-3 Days =	28 APR 2022	13.01	0.03
01MAY22	-4 Days =	27 APR 2022	13.04	0.06
01MAY22	-5 Days =	26 APR 2022	13.05	0.07
01MAY22	-6 Days =	25 APR 2022	13.08	0.10
01MAY22	-7 Days =	24 APR 2022	13.11	0.13
01MAY22	-30 Days =	01 APR 2022	13.77	0.79
01MAY22	-1 Year =	01 MAY 2021	13.99	1.01
01MAY22	-2 Year =	01 MAY 2020	11.43	-1.55

Long Term Mean 30day Avearge ET for Lake Alfred (Inches) = -NR-

- Lake Okeechobee Net Inflow (LONIN)

Average Flow over the previous 14 days					Avg-Daily Flow
01MAY22	Today =	01 MAY 2022	-2426	MON	6310
01MAY22	-1 Day =	30 APR 2022	-2724	SUN	-1784
01MAY22	-2 Days =	29 APR 2022	-2682	SAT	-3130
01MAY22	-3 Days =	28 APR 2022	-2356	FRI	-4228
01MAY22	-4 Days =	27 APR 2022	-1992	THU	1685
01MAY22	-5 Days =	26 APR 2022	-2544	WED	-745
01MAY22	-6 Days =	25 APR 2022	-2632	TUE	-1234
01MAY22	-7 Days =	24 APR 2022	-2804	MON	-3851
01MAY22	-8 Days =	23 APR 2022	-3980	SUN	588
01MAY22	-9 Days =	22 APR 2022	-4158	SAT	-5414
01MAY22	-10 Days =	21 APR 2022	-4101	FRI	-5985
01MAY22	-11 Days =	20 APR 2022	-3583	THU	-5039
01MAY22	-12 Days =	19 APR 2022	-3140	WED	-7242
01MAY22	-13 Days =	18 APR 2022	-2344	TUE	-3888

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S65E

Average Flow over previous 14 days					Avg-Daily Flow
01MAY22	Today=	01 MAY 2022	1642	MON	1887
01MAY22	-1 Day =	30 APR 2022	1588	SUN	1882
01MAY22	-2 Days =	29 APR 2022	1558	SAT	-NR-
01MAY22	-3 Days =	28 APR 2022	1536	FRI	1824
01MAY22	-4 Days =	27 APR 2022	1494	THU	1813
01MAY22	-5 Days =	26 APR 2022	1444	WED	1808
01MAY22	-6 Days =	25 APR 2022	1416	TUE	1678
01MAY22	-7 Days =	24 APR 2022	1378	MON	1700
01MAY22	-8 Days =	23 APR 2022	1338	SUN	1585
01MAY22	-9 Days =	22 APR 2022	1306	SAT	1580
01MAY22	-10 Days =	21 APR 2022	1268	FRI	1480
01MAY22	-11 Days =	20 APR 2022	1244	THU	1379
01MAY22	-12 Days =	19 APR 2022	1223	WED	1374
01MAY22	-13 Days =	18 APR 2022	1199	TUE	1359

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S65EX1

Average Flow over previous 14 days					Avg-Daily Flow
01MAY22	Today=	01 MAY 2022	0	MON	0
01MAY22	-1 Day =	30 APR 2022	0	SUN	0
01MAY22	-2 Days =	29 APR 2022	0	SAT	0
01MAY22	-3 Days =	28 APR 2022	0	FRI	0
01MAY22	-4 Days =	27 APR 2022	0	THU	0
01MAY22	-5 Days =	26 APR 2022	0	WED	0
01MAY22	-6 Days =	25 APR 2022	0	TUE	0
01MAY22	-7 Days =	24 APR 2022	0	MON	0
01MAY22	-8 Days =	23 APR 2022	0	SUN	0
01MAY22	-9 Days =	22 APR 2022	0	SAT	0
01MAY22	-10 Days =	21 APR 2022	0	FRI	0
01MAY22	-11 Days =	20 APR 2022	0	THU	0
01MAY22	-12 Days =	19 APR 2022	0	WED	0
01MAY22	-13 Days =	18 APR 2022	0	TUE	0

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Lake Okeechobee Outlets Last 14 Days

	S-77 Discharge (ALL DAY)	Below S-77 Discharge (ALL-FT)	S-78 Discharge (ALL DAY)	S-79 Discharge (ALL DAY)
DATE	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)
01 MAY 2022	2638	2667	1984	2738
30 APR 2022	2508	1782	1635	2416
29 APR 2022	2688	2286	1668	2102
28 APR 2022	2603	3688	2292	2324
27 APR 2022	2580	3192	2070	2414
26 APR 2022	3318	3529	2267	3221
25 APR 2022	3531	3762	3524	3752
24 APR 2022	2957	3471	3380	3682
23 APR 2022	3117	3141	2402	3091
22 APR 2022	3330	3088	2182	2814
21 APR 2022	2629	2663	2247	2702
20 APR 2022	953	2225	2001	2968
19 APR 2022	987	3103	2129	3315
18 APR 2022	1196	2711	2055	3208

	S-310 Discharge (ALL DAY)	S-351 Discharge (ALL DAY)	S-352 Discharge (ALL DAY)	S-354 Discharge (ALL DAY)	L8 Canal Pt Discharge (ALL DAY)
DATE	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)	(AC-FT)
01 MAY 2022	-44	274	292	0	-NR-
30 APR 2022	-8	175	545	169	-NR-
29 APR 2022	114	812	386	463	-NR-
28 APR 2022	398	0	0	0	-NR-
27 APR 2022	429	1564	734	850	-NR-
26 APR 2022	380	2564	1624	1885	-NR-
25 APR 2022	154	2262	1443	1339	-NR-
24 APR 2022	169	2067	1546	998	-NR-
23 APR 2022	164	2301	1320	1181	-NR-
22 APR 2022	177	2736	1332	1326	-NR-
21 APR 2022	39	2468	1432	1154	-NR-
20 APR 2022	-67	2157	1419	878	-NR-
19 APR 2022	-23	2414	1343	713	-NR-
18 APR 2022	-71	1076	1135	230	-NR-

	S-308 Discharge (ALL DAY)	Below S-308 Discharge (ALL-FT)	S-80 Discharge (ALL-DAY)
DATE	(AC-FT)	(AC-FT)	(AC-FT)
01 MAY 2022	1523	-NR-	49
30 APR 2022	1481	-NR-	48
29 APR 2022	1379	-NR-	40
28 APR 2022	1487	-NR-	46
27 APR 2022	1564	-NR-	46
26 APR 2022	1473	-NR-	46
25 APR 2022	1358	-NR-	52
24 APR 2022	1353	-NR-	52
23 APR 2022	1463	-NR-	44
22 APR 2022	1446	-NR-	20
21 APR 2022	1468	-NR-	44
20 APR 2022	1426	-NR-	40
19 APR 2022	1162	-NR-	35

*** NOTE: Discharge (ALL DAY) is computed using Spillway, Sector Gate and Lockages Discharges from 0015 hrs to 2400 hrs.

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(I) - Flows preceded by "I" signify an instantaneous flow computed from the single value reported for the day

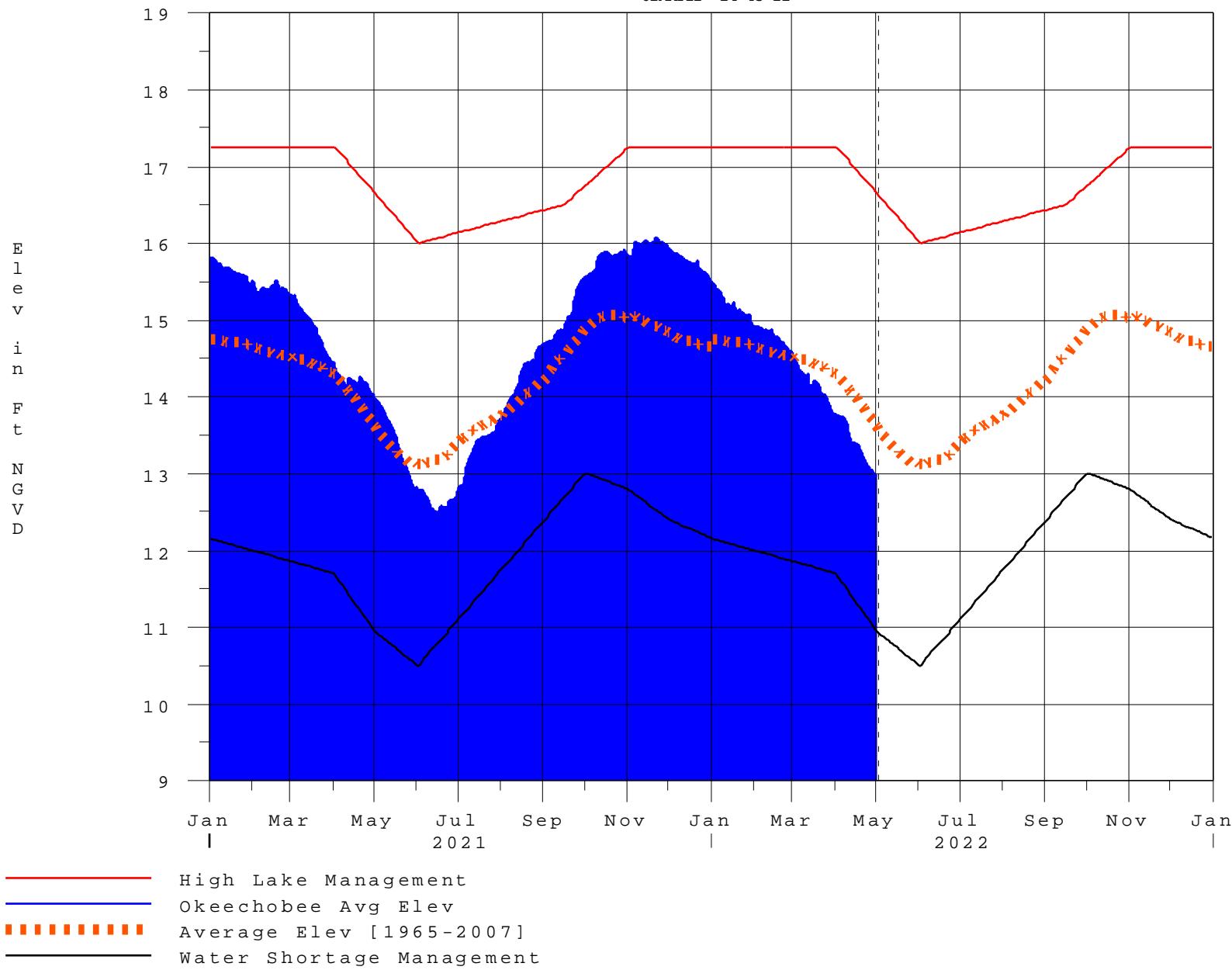
- * On 11 May 1999, Lake Okeechobee Elevation was switched from Instantaneous 2400 value to an average-daily lake average.
- On 14 Mar 2001, due to the isolation of various gages within the standard 10 stations, the average of the interior 4 station gages was used as the Lake Okeechobee Elevation.
- On 05 November 2010, Lake Okeechobee Elevation was switched to a 9 gage mix of interior and edge gages to obtain a more reliable representation of the lake level.
- On 09 May 2011, Lake Okeechobee Elevation was switched to a 8 gage mix of interior and edge gages to obtain a more reliable representation of the lake level due to isolation of S135 from low lake levels.
- Today Lake Okeechobee elevation is determined from the 4 Int & 4 Edge stations

++ For more information see the Jacksonville District Navigation website at <http://www.saj.usace.army.mil/>

\$ For information regarding Lake Okeechobee Service Area water restrictions please refer to www.sfwmd.gov

Lake Okeechobee

02MAY22 14:45:21



Classification Tables

Supplemental Tables used in conjunction with the LORS2008 Release

Guidance Flow Charts

- [Class Limits for Tributary Hydrologic Conditions](#)

Table K-2 in the Lake Okeechobee Water Control Plan

- [6-15 Day Precipitation Outlook Categories](#)

Table ?? in the Lake Okeechobee Water Control Plan

- [Classification of Lake Okeechobee Net Inflow for Seasonal Outlook](#)

Table K-3 in the Lake Okeechobee Water Control Plan

- [Classification of Lake Okeechobee Net Inflow for Multi-Seasonal Outlook](#)

Table K-4 in the Lake Okeechobee Water Control Plan

[**Back to Lake Okeechobee Operations Main Page**](#)

[**Back to U.S. Army Corps of Engineers Lake Okeechobee Operations Homepage**](#)

Tributary Hydrologic Classification*	Palmer Index Class Limits	2-wk Mean L.O. Net Inflow Class Limits
Very Wet	3.0 or greater	Greater \geq 6000 cfs
Wet	1.5 to 2.99	2500 - 5999 cfs
Near Normal	-1.49 to 1.49	500 - 2499 cfs
Dry	-2.99 to -1.5	-5000 – 500 cfs
Very Dry	-3.0 or less	Less than -5000 cfs

* use the wettest of the two indicators

Classification of Lake Okeechobee Net Inflow Seasonal Outlook*

Lake Net Inflow Prediction [million acre-feet]	Equivalent Depth** [feet]	Lake Okeechobee Net Inflow Seasonal Outlook
> 0.93	> 2.0	Very Wet
0.71 to 0.93	1.51 to 2.0	Wet
0.35 to 0.70	0.75 to 1.5	Normal
< 0.35	< 0.75	Dry

****Volume-depth conversion based on average lake surface area of 467,000 acres**

Classification of Lake Okeechobee Net Inflow Multi-Seasonal Outlook*

Lake Net Inflow Prediction [million acre-feet]	Equivalent Depth** [feet]	Lake Okeechobee Net Inflow Multi-Seasonal Outlook
> 2.0	> 4.3	Very Wet
1.18 to 2.0	2.51 to 4.3	Wet
0.5 to 1.17	1.1 to 2.5	Normal
< 0.5	< 1.1	Dry

****Volume-depth conversion based on average lake surface area of 467,000 acres**

6-15 Day Precipitation Outlook Categories*

6-15 Day Precipitation Outlook Categories	WSE Decision Tree Categories
Above Normal	Wet to Very Wet
Normal	Normal
Below Normal	Dry

*** Corresponds to Table 7-6 in the Lake Okeechobee Water Control Plan**